

## Title (en)

Process for improving efficiency of DNA amplification reactions

## Title (de)

Verfahren zur Verbesserung der Effizienz von DNS-Amplifizierungsreaktionen

## Title (fr)

Méthode pour améliorer l'efficience des réactions d'amplifications de l'ADN

## Publication

**EP 1491637 A1 20041229 (EN)**

## Application

**EP 03291540 A 20030624**

## Priority

- EP 03291540 A 20030624
- CA 2433141 A 20030623
- JP 2002003912 A 20020110

## Abstract (en)

Improving (M1) efficiency of DNA amplification reaction involves binding a compound such as LCRed 705, an amino group, phosphate, a biotin, Texas-Red, rhodamine X, rhodamine X isothiocyanate, a rhodamine, LCRed640, a mercapto group, psoralen, cholesterol, tetra chloro fluoresceine, cy3, cy5, an oligonucleotide having 2 or more bases with a G+C content of 15% to the 5' terminal of the primer. Improving (M1) efficiency of DNA amplification reaction involves binding a compound such as LCRed 705, an amino group, phosphate, a biotin, digoxigenin, dinitrophenyl, carboxy tetra methyl rhodamine, Texas-Red, rhodamine X, rhodamine X isothiocyanate, a rhodamine, LCRed640, a mercapto group, psoralen, cholesterol, fluorescein isothiocyanate/6-carboxy fluorescein, tetra chloro fluorescein, cy3, cy5, 4,4-difluoro-5-styryl-4bora-3a,4a-diaza-s-indacene-3-propionic acid, succinimidyl ester (BODIPY564/570), 4,4-difluoro-5,7-diphenyl-4-bora-3a,4a-diaza-s-indacene-3-propionic acid, succinimidyl ester (BODIPY530/550), 4,4-difluoro-5-(4-phenyl-1,3-butadienyl)-4bora-3a,4a-diaza-s-indacene-3propionic acid, succinimidyl ester (BODIPY581/591) and an oligonucleotide having 2 or more bases with a G+C content of 15% to the 5' terminal of the primer. An independent claim is included for improving specific binding of DNA to an oligonucleotide.

## IPC 1-7

**C12Q 1/68**

## IPC 8 full level

**C12N 15/09** (2006.01); **C12Q 1/68** (2006.01)

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**C12Q 1/6832** (2013.01 - EP US); **C12Q 1/6853** (2013.01 - EP US); **C12Q 1/686** (2013.01 - EP US)

## Citation (search report)

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- [T] DATABASE CA [online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KOIZUMI, TAKESHI ET AL: "Improving DNA amplification and hybridization efficiency by attaching compounds or oligonucleotide to primer", XP002259044, retrieved from STN Database accession no. 139:96316 & JP 2003199568 A 20030715 - NICHIREI KK

## Cited by

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## Designated contracting state (EPC)

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